

REVIEW OF CUMULATIVE IMPACTS

5452

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The California Environmental Quality Act (CEQA) requires that significant adverse cumulative effects, also called cumulative impacts, be specifically addressed along with individual adverse environmental effects. The Forest Practice Rules (FPR) address most foreseeable individual environmental effects that might result from a timber harvesting operation. The rules also partially address cumulative effects but not to the extent required by CEQA, as seen in E.P.I.C. vs. Johnson and the records of the Board of Forestry.

Cumulative effects are only one of many possible environmental effects to be considered. Cumulative effects do not need more review effort than any individual effect. They are highlighted here only because they are not so completely addressed by the FPR, as are individual effects. The amount of space devoted here to cumulative effects should not be construed as requiring disproportionate attention to such effects. In fact, reducing cumulative effects almost always requires mitigating individual effects.

The question is how CDF should accomplish the required consideration of cumulative effects. The following sections of the state CEQA guidelines are important in understanding the process for addressing cumulative effects: 14 CCR §15065, 15130, 15355, 15358, and 15382. Although many of these sections make specific reference to preparation of Environmental Impact Reports (EIRs), and although THPs are exempt from EIR preparation, these sections still have value in their review of cumulative effects. Nevertheless, do not construe any reference to these sections as implying that an EIR might be required in preparing or reviewing of a THP.

Cumulative effects may result from interaction of proposed operations with other land use activities on the same or nearby areas and include more than water quality effects. Land-use activities to be considered are those occurring near enough in time and location to the proposed operation to produce significant interaction and are not limited to timber operations. Land-use activities usually exist in the same watershed areas, but some values and activities such as wildlife, air quality, and traffic may affect a wider area. Past activities should be considered, except those from more than 10 years ago unless they have unusually persistent effects. Future activities (those expected to occur within the next 10 years) also should be considered. Proximity is relative to the size and intensity of the proposed timber operation and the other pertinent land use activities.

CDF generally believes that while significant cumulative effects from human activity may at times occur, there is not at present sufficient information to identify precisely where and to what extent they do occur. It is further recognized that knowledge of cumulative effects is inadequate, and measurement is difficult. Also, cumulative effects vary in seriousness and are difficult to predict and control. Timber operations actually generally do not cause impacts as severe as more permanent changes to the environment, such as subdivisions, for example. In view of these constraints, review teams and CDF should address cumulative effects in the following manner when reviewing proposed timber operations. (See Cumulative Effect Evaluation-not available in e-format.)

Guide for Evaluating Forest Practice Cumulative Effects

The THP form contains a specific question requiring the RPF preparing the plan to address cumulative effects. The review team and CDF must review the answer provided and each makes his/her own analyses of cumulative effects. In the review on each THP, consider the following question for each of the fourteen items below: Are significant adverse cumulative effects reasonably expected to occur in any of the following:

1. In surface soil erosion, from (a) harvest or (b) roads?
2. In mass soil movement, from (a) harvest or (b) roads?
3. In soil compaction, from harvest?
4. In chemical or biological properties of soil?
5. In water quality, from (a) harvest or (b) roads?
6. In water temperature?
7. In suspended sediment?
8. To fish or wildlife or their habitats?
9. To recreation?
10. To aesthetics?
11. To rare, threatened, or endangered species of plants or animals, or in their habitats?
12. To archaeological resources?

13. To fire hazards?

14. In vehicular traffic?

If significant adverse cumulative effects are expected in any of these items, identify the item(s) and describe additional measures needed to mitigate the effects.

The list of 14 items should not be thought of as all-inclusive or as 14 separate effects. It is a starting point for an analysis, not an end in itself. The 14 effects might be at least partially interrelated. They should not be addressed simply with a "yes" or "no" in front of each item. Even if all were answered "no" individually, the interrelationships might still create a cumulative effect.

Information needs

Seek cumulative-effect information from the review team and other sources to augment information found in individual THPs. For example, RPFs preparing plans, forest practice inspectors, members of the public, water district representatives, and county planners often have valuable local information about the area.

Specific information that may be needed includes but is not limited to the items listed below:

- Identification of past, present, and probable future timber operations in the vicinity.
- Identification of the regeneration methods and yarding systems used in past and proposed timber operations and those that might be used on future operations.
- Identification of the other land use activities in the vicinity that have already occurred or may reasonably be expected to occur.
- Evaluation of the distribution of timber operations and other activities---past, present, and future--over the area.
- Identification of any pertinent studies or reports for the area.

Existing rules

Analyze the Forest Practice Rules to see whether they have already addressed potential cumulative effects. Individual rules or rules acting in combination may provide adequate protection without further mitigation. For example, it is generally necessary to minimize the water quality impacts of multiple timber operations on water quality resulting from erosion and sedimentation. Specific examples include the following:

- The watercourse protection rules in the three Forest Districts [14 CCR §916.3(f) and 956(f)] require that except for salvage operations, no harvesting is to be done within watercourse protection zones until the canopy has been sufficiently re-established to prevent substantial adverse impacts on soil erosion, wildlife, and water quality.
- The clearcutting regeneration method (and other regeneration methods with similar impacts) is limited as to size and spacing of clearcut areas in distance and time.

Issues raised by public, review team, and CDF

Cumulative effect issues may be raised during THP review by members of the public or by any review team member. CDF personnel should not wait for others to raise such issues if they see evidence of problems. If a cumulative effect issue is raised by a review team member or by a CDF representative, the chairperson should request that person to provide supporting evidence and suggested mitigation. Issues raised by the public should be discussed with the review team to evaluate their validity and their possible mitigation.

The exact words "cumulative effect" or "cumulative impact" need not appear for the issue to be raised. The concept can arise in many guises--in questions about past logging or about the effect of logging trucks on commuter traffic, for example. Do not ignore the cumulative effect issues represented by such concerns.

Plan Review

Regardless of source, cumulative effect issues that appear to have significance shall be discussed with the plan submitter and/or the RPF who prepared the plan. If satisfactory mitigation can be developed, they should be included in the plan. Note the following examples:

- Yarding systems might be modified (tractor to cable, for example) to reduce soil disturbance or address potential slope-stability problems.
- Regeneration methods might be revised to reduce potential soil erosion and water quality problems or to assure timely regeneration.

Plan denial or referral

If the effects are significant, but the plan submitter will accept no satisfactory mitigation and authority exists in the rules to require such mitigation, denial of the plan should be considered. If authority for denial does not exist, two other options exist:

- Refer the issue to the board for an emergency rule under PRC §4555. This would require that the board itself have authority to adopt the needed rule and that all other requirements of PRC §4555 and GC §11349.6 be satisfied.
- Lacking a case for denial or referral, the plan must be approved. If there is no case for denial or referral, quite likely the effect is not significant under CEQA.

Notice of Conformance

Issues raised by the public or by review team members and significant issues raised by CDF personnel during review shall be identified in the Notice of Conformance. One or more of several possible responses shall be made. Consider the following examples:

- The effect has been mitigated.
- The department has no authority to compel mitigation.
- No feasible mitigation appears to be available.
- Cumulative effects do not appear to be significant.

Such response requires an explanation. Give enough specific information so that someone not acquainted with the process can understand how the conclusion was reached. Avoid unsubstantiated conclusive statements such as, "The present rules are adequate to protect the inner gorge." Instead, say something like, "14 CCR §916.3(f), taken together with 14 CCR §914.6, 916.5(c), and 914.2(f), will reduce present and future impacts on the inner gorges of this and other operations in this drainage. Report dated 4/15/86 by CDMG Geologist Jim Jones supports the conclusion that individual effects have been so reduced that significant cumulative effects are very unlikely."

Record of review

Maintain a record of cumulative-effects review for each plan. See Cumulative Effect Evaluation. The exhibit is intended to provide a two-sided, one-page document to record information. The second side has been designed so as not to require the entry of any additional information. Furthermore, this approach would place a record in the files to which the public has access. A copy of the "Guide for Evaluating Forest Practice Cumulative Effects" should be attached.

References

The following papers support, explain, or develop the department's position on cumulative impacts:

- "A Perspective on the Cumulative Effects of Logging on Streamflow and Sedimentation" by Raymond Rice.
- "Report of the Cumulative Effects Task Force" by Board of Forestry Task Force.

- "Request to State Water Resources Control Board for 208 Certification by State Board of Forestry" as presented by Carlton S. Yee to the State Water Resources Control Board on March 8, 1984.

FORMS AND/OR FORMS SAMPLES: RETURN TO ISSUANCE HOME PAGE FOR FORMS/FORMS SAMPLES SITE LINK.

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